

CLAIMS

What is claimed is:

1. An bed rest apparatus for supporting a human body and relieving bedsores, said apparatus comprising:

5 a semi-compressible pad, said pad enclosing a plurality of crosswise channels, wherein on a first side of the pad a first end of each crosswise channel is closed off, and on a second side of the pad a second end of each crosswise channel is open;

10 a plurality of flexible transfer tubes; and

15 a pump distributor to deliver fluid from a fluid reservoir to the to the plurality of flexible transfer tubes, wherein each flexible transfer tube connects the open, second end of each crosswise channel to the pump distributor, and wherein the crosswise channels are filled with fluid under pressure and the pump distributor temporally varies the pressure of the fluid in the crosswise channels, thus relieving pressure points on the patient and preventing bedsores.

20 2. The bed rest apparatus of claim 1, further comprising a patient anti-slide device, said anti-slide device comprising a pad that includes a plurality of straps, wherein said anti-slide device is dimensioned to fit underneath the 25 semi-compressible pad, wherein the plurality of straps serve to strap the anti-slide device to a bed frame and to strap a patient to the semi-compressible pad.

3. The bed rest apparatus of claim 2, wherein the pad of the anti-slide device includes a first set of straps to hold the anti-slide device to a horizontal bed frame member, a second set of straps to hold the anti-slide device to a raised
5 bed frame member, and a third set of straps to hold a patient to the compressible pad.

4. The bed rest apparatus of claim 1, wherein the semi-compressible pad is manufactured from a non-crumbly semi-
10 compressible material.

5. The bed rest apparatus of claim 4, wherein the non-crumbly semi-compressible material is foam rubber.

6. The bed rest apparatus of claim 1, wherein the semi-compressible pad includes a water proof cover, wherein the cover can be manufactured from either cloth, synthetic fabric, or flexible plastic.
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7. The bed rest apparatus of claim 6, wherein said cover includes on an upper surface crosswise grooves to help prevent a patient who is sitting on said semi-compressible pad from sliding off of the semi-compressible pad.
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8. The bed rest apparatus of claim 1, wherein each crosswise channel includes an upper wall and a lower wall, wherein the upper wall of each channel is manufactured from a flexible material that can deform under pressure, wherein the lower wall is manufactured from a rigid material, and wherein
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both the flexible material and the rigid material are impermeable to the fluid contained within the channel.

9. The bed rest apparatus of claim 1, wherein each
5 channel has a cross sectional shape that is circular.

10. The bed rest apparatus of claim 1, wherein each channel has a cross sectional shape that is elliptical.

10 11. The bed rest apparatus of claim 1, wherein each channel has a cross sectional shape that is cup-shaped, wherein the upper wall of the channel is relatively flat, and the lower wall of the channel is rounded.

15 12. The bed rest apparatus of claim 1, wherein the semi-compressible pad is dimensioned to support the pelvis and thighs of a human body.

20 13. The bed rest apparatus of claim 1, wherein the semi-compressible pad is dimensioned to support an entire human body.

25 14. The bed rest apparatus of claim 1, wherein the semi-compressible pad includes an upper surface, said upper surface being recessed at one end so as to accommodate a patient's buttocks, and said upper surface being raised at the other end so as to elevate a patient's thighs into a raised position.

15. The bed rest apparatus of claim 1, wherein the pump distributor includes a micro-controller that can be programmed to temporally vary the fluid pressure in the crosswise channels.

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16. The bed rest apparatus of claim 1, wherein the pump distributor includes a heating unit and means for controlling the temperature of the fluid.

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17. The bed rest apparatus of claim 1, wherein the fluid is incompressible.

18. The bed rest apparatus of claim 16, wherein the fluid can be compressed air, water, or liquid silicone.

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19. The bed rest apparatus of claim 1, further comprising a rigid plate disposed underneath the semi-compressible pad.

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20. The bed rest apparatus of claim 18, wherein the rigid plate is manufactured from plastic.

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21. The bed rest apparatus of claim 1, wherein each crosswise channel includes a wall manufactured from a flexible material that can deform under pressure, and wherein the bed rest apparatus further comprises a rigid cup spaced below each crosswise channel so that there is a space between a lower portion of the crosswise channel and the rigid cup, and

wherein both the flexible material and the rigid cup are impermeable to the fluid contained within the channel.